

## Chapter 12            Community Infrastructure, Services, Safety & Health

### Introduction

This chapter deals with the health, safety and welfare issues to which the City must attend. Basic City services and the facilities that support them are often taken for granted by citizens, but are important to take into account when planning the City's future. Additionally, there are quasi-public and private utilities that residents rely upon. While the City may not have a hand in directly regulating these utilities, it is important that utility provision and development are complementary to planning community facilities and land use planning. The utility services discussed in this chapter include:

- *Public Water & Sewer:* The City has made large capital investments to create a safe and reliable water supply and a wastewater treatment system that are cost effective and environmentally sound.
- *Solid Waste Management:* The City operates a Resource Recovery Facility (RRF) where municipal solid waste is incinerated, providing energy to heat and cool portions of James Madison University. The City also has a contract with neighboring Rockingham County for use of its landfill, when needed. These efforts as well as programs to encourage recycling ensure that solid waste is handled responsibly.
- *Harrisonburg Electric Commission (HEC):* HEC is a quasi-governmental political subdivision of the City that operates as a municipal electric provider.
- *Natural Gas Service:* Columbia Gas of Virginia, a NiSource company operates in the City to provide uninterrupted gas service to residential users.
- *Telecommunications:* The City is served by a number of providers including Verizon, NTelos, Comcast and Shentel. These providers maintain a critical infrastructure that is vital to the quality of life and economic development of the community. These systems are deployed throughout the City so that broadband, wireless, and emergency communications are met. Along with other infrastructure in the community, these facilities are deployed in a manner that maximizes customer service, while minimizing the proliferation of towers and duplication of utility poles. The City and County operate a dedicated broadband network for shared emergency communication response.
- *Stormwater Management:* While the City does not yet maintain a public stormwater utility, the City has made strides in the recent past to assign responsibility for maintenance of private stormwater facilities to appropriate owners in order to ensure proper operation and maintenance. The City maintains many public stormwater conveyance easements, but there are many stormwater easements that are merely reserved and not the City's responsibility.

The City's Capital Improvement Program (CIP) serves as the major financial planning tool for expenditures towards public capital facilities and equipment. It guides development and budgetary priorities for large-scale projects, which exceed funding amounts in the normal operating budget. The CIP helps to ensure that major projects are within fiscal reach for the community and helps to prioritize the most vital capital projects.

Safety and health issues are also addressed here through recommendations for new police and fire facilities and for cooperative programs with local health organizations to inform citizens of health programs and to encourage healthy lifestyles.

## **Background**

### **Water Supply**

The City of Harrisonburg strives to meet its responsibility in providing dependable and reliable water service to its citizens. In doing so, the City owns, operates, and maintains a complete water system from source to customer. Information regarding the City's current water system and plans for meeting future water demand is described in detail in the Plan Background Implementation Supplement and is summarized below.

Water Use: In 2007, at the height of development, the City treated on average a total of 6.75 million gallons per day (MGD) of which 4.61 MGD was sold to in-City customers. The water use data is based on water service to the 7,585 acres of developed land within the City. Water usage will increase as the undeveloped land within the City is built-out. Accordingly, the potential increase in water use was projected based on the build-out of the City for each water user category by using historical usage rates and maximum anticipated usage rates. Based on historical usage rates, build-out of the City could use an additional 3.35 MGD. At the maximum anticipated usage rate, the additional water usage would be 4.46 MGD. Table 12-1 lists the current totals of water usage and shows the projected water usage based on historical and maximum design rates. The projected water capacity needs range from 11.05 to 14.26 MGD for historical rates versus maximum projections, respectively.

**Table 12-1: Harrisonburg Total Projected Water Capacity**

Category	Zoning	Developed Land			Undeveloped Land				Historical Total	Design Total
		Developed Acreage	2007 Demand	Design Demand (2)	Undeveloped Acreage	Historical Rate	Historical Demand	Design Demand (2)		
		(ac.)	(mgd)	(mgd)	(ac.)	(mgd/ac.)	(mgd)	(mgd)	(mgd)	(mgd)
Res.	R-1, R-P	2,693	1.32	1.76	520	590	0.31	0.41	1.63	2.15
Com.	B-1, B-1C B-2, B-2C	1,161	1.33	1.77	394	1,787	0.70	0.94	2.03	2.71
Ind.	M-1, M-1C,	1,144	0.6	0.80	533	1,849	0.99	1.31	1.59	2.11
Inst.	B-2 (Ov), B-2C (Ov), R-2 (Ov.), R-3 (Ov)	186	0.54	0.72	14	1,901	0.03	0.04	0.57	0.75
City			0.16	0.21				0.00	0.16	0.21
Apartments	R-2, R-2C R-3, R-3C R-4, R-6, R-7	2,099	0.66	0.88	677	1,966	1.33	1.77	1.99	2.65
City Subtotal		7,585	4.61	6.13	2,138		3.35	4.46	7.95	10.59
Rural			0.53	0.84			0.01	0.01	0.64	0.85
Rockingham County			0.17	0.23			0.83	1.10	1.00	1.33
Backwash (6)			0.17	0.17			0.11	0.15	0.28	0.32
Waterloss			1.17	1.17			0	0.00	1.17	1.17
Other Subtotal			2.14	2.40			0.95	1.26	3.09	3.67
Grand Total			6.75	8.54			4.30	5.72	11.05	14.26

Source: Harrisonburg Water System Capacity Evaluation, Public Utilities, 2007.

**NOTES:**

- (1) Acreage data is 2007
- (2) VDH requires treatment and supply facilities to accommodate the peak day demand; typically accepted and validated in Harrisonburg observations at 133 percent (storage, water treatment plant, backwash, demand peak, etc.)
- (3) Undeveloped City Non-Industrial assumes 75 percent maximum density and VDH planning criteria
- (4) Undeveloped City Industrial transitions to Commercial; assumes 75 percent maximum density
- (5) Assume County Contract will expand to 1.0 MGD
- (6) Backwash volume = 2.5 percent of water volume treated

Sources of Water: Currently, two sources are available for supplying the City with potable water. These sources consist of surface and/or impoundment withdrawals from the North River and from Rawley Springs. A major project is now underway to upgrade the existing raw water supply line from Rawley Springs and to construct a new raw water supply line from the South Fork of the Shenandoah River to the City's Water Treatment Plant (WTP). These projects, once completed, will significantly enhance the City's water supply. The current available capacity of the City's water supply sources (excluding Silver Lake, a limited resource for only emergency use) is approximately 11.6 MGD. Current available source capacity, without the availability of Switzer Dam during extended drought conditions, is approximately 6.9 MGD. This is below the City's current design demand of 8.54 MGD.

After a new Rawley Springs water supply line is constructed and the Shenandoah River source is brought online, the future long term available capacity of the City's water supply sources—excluding Silver Lake—will be 15.0 MGD through a variety of source options. With justification of demand under permit review, the Shenandoah River could possibly provide for growth in excess of 15.0 MGD.

**Treatment:** Generally, the City's water supply is good quality; treated water meets or exceeds State regulatory drinking water standards. The current capacity of the City's Water Treatment Plant (WTP) is 15.0 MGD. Although the treatment facility is capable of treating 15.0 MGD, its rating remains at 10.0 MGD until future water supplies become available.

Table 12-2 provides a summary of the City's major water system components and a comparison with current and future system demands.

**Table 12-2: Harrisonburg Water System Summary**

<b>Source</b>	<b>Current Status (MGD)</b>	<b>Future Status (MGD)</b>
Water Use (demand)	8.54 <sup>(1)</sup>	14.26 <sup>(2)</sup>
Treatment Capacity <sup>(3)</sup>	10.0	15.0
Source Capacity (normal)	10.2	15.0
Source Capacity (drought)	6.7	14.9

**NOTES:**

- (1) 2007 design demand.
- (2) Projected average water use. Projected water use using historical usage rates is 11.05 MGD. Projected water use design demand is 14.26 MGD.
- (3) Although the current and future rated capacities of the WTP are 10.00 MGD and 15.00 MGD, respectively, the lower capacities listed above have been added to reflect the consistent average daily output that is expected. The added capacity afforded by the higher figures is used to supply daily peak demands when required and to supplement storage in the system.

As shown above, the City's current water system is capable of meeting or exceeding current system demands. Additionally, once construction of both the Shenandoah River raw water supply line and the replacement of the Rawley Springs raw water supply line are completed, the City's improved water system will be capable of meeting or exceeding future system demands.

**Storage and Distribution System:** Currently, the City has a total treated water storage capacity of 23.16 million gallons (MG). This storage capacity is provided by nine storage facilities spread across 10 separate pressure zones (six zones with storage and four with no storage). The City owns, operates, and maintains nearly 287 miles of water distribution pipes ranging in size from 1-inch in diameter to 18-inch in diameter. Construction projects involving both expansions and replacements are regularly undertaken to improve water service to City customers. The Department of Public Utilities identifies three areas of concern in the current storage and distribution system:

- The need for an additional storage and booster pump station in the 2<sup>nd</sup> High Pressure Zone

- The need to upgrade the booster pump station and the storage tank in the Parkview Pressure Zone
- The need to upgrade the transmission pipe in the Dale Enterprise Pressure Zone west of the City.

Most recently, the City has completed the construction of three water storage facilities in the Low zones totaling 18.3 million gallons of storage.

### **Wastewater Treatment**

A major responsibility of the City is to provide a dependable and reliable wastewater collection, conveyance, and treatment system. Wastewater treatment for the City is provided by the Harrisonburg-Rockingham Regional Sewer Authority (HRRSA).

Sewer Use: In 2007, City sewer use averaged a total of 7.22 million gallons per day (MGD). Records from the last recent non-drought or “wet” year, which occurred in 2004, indicate that the City discharged 8.30 MGD of sewage flow to the HRRSA facility. Predictably, non-drought or “wet” years typically result in increased discharges to the treatment plant primarily due to the impacts of inflow and infiltration (I/I). Historically, the City has incurred from 0.40 MGD to 4.10 MGD of I/I into its collection system.

The current sewer use data is based on sewer service to the 7,585 acres of developed land within the City. Additional sewer use will occur in the undeveloped land as build-out of this land continues. Based upon the historical sewer usage rate, the additional usage at build-out is projected to be 7.60 MGD. The maximum projected design demand is 11.70 MGD. Table 12-3 provides a summary of the City’s sewer system demand.

**Table 12-3: Harrisonburg Sewer System Demand Summary**

Category	2007 Demand	Projected Demand	Design Demand
	(mgd)	(mgd)	(mgd)
Non-Industrial (1)	2.94	2.36	5.30
Industrial (2)	1.21	0.98	2.19
Rural	0.04	0.01	0.05
Rockingham County (3)	0.06	0.00	0.06
Subtotal	4.26	3.35	7.60
Infiltration and Inflow (I&I) (4)	2.96	0.00	4.10
Grand Total	7.22	3.35	11.70

Source: Harrisonburg Sewer System Capacity Evaluation, Director of Public Utilities, 2007 data.

**Notes:**

- (1) Undeveloped City Non-Industrial assumes 75 percent maximum density and VDH planning criteria
- (2) Undeveloped City Industrial transitions to Commercial; assumes 75 percent maximum density
- (3) New County contract does not target potential County market
- (4) Harrisonburg 10 year I&I trend shown below; planning recognizes maximum recorded annual I&I.

Treatment: All sewage from customers within the City who are connected to the public wastewater collection system is conveyed to the HRRSA treatment facility in Mount Crawford, Virginia. This modern facility is a technologically advanced wastewater treatment plant (WWTP) that was recently improved to include biological nutrient removal (BNR) for meeting the stringent requirements of the Chesapeake Bay Preservation Act.

The HRRSA WWTP has a current capacity of 22.0 MGD and treats sewage from the City of Harrisonburg, portions of Rockingham County, and the Towns of Bridgewater, Mount Crawford, and Dayton. Of the current 22.0 MGD capacity, 12.8 MGD are specifically allocated to the City. This capacity exceeds the City's projected design demand of 11.7 MGD.

Collection: Currently, the City owns, operates, and maintains approximately 203 miles of wastewater collection pipes ranging in size from 3-inch in diameter to 36-inch in diameter. Construction projects involving both expansions and replacements are regularly undertaken to improve sanitary sewer service to City customers. To aid in maintaining its wastewater collection system, the City employs an aggressive inflow and infiltration (I/I) abatement program. City forces regularly inspect the sewers, identify problems, and implement corrective actions on a subsection by subsection basis. As a proactive measure for pending regulations involving sanitary sewer Capacity, Management, Operation and Maintenance (CMOM), the City has recently undertaken a capacity evaluation of its primary interceptors. Results from the evaluation will be used to outline future Capital Improvement Plan (CIP) projects for upgrading system capacities, where necessary.

### **Stormwater Management**

System Description: Approximately two-thirds of the storm water runoff from the City discharges into the Blacks Run watershed. The Sunset Heights Branch watershed receives storm water runoff from the western portion of the City and a small portion of the northwest section of the City drains into the Smith Creek watershed. Both the Sunset Heights Branch and Blacks Run watersheds discharge into Cooks Creek in southern Rockingham County. A loosely connected network of stormwater pipes, culverts, inlets, and drainage swales are located throughout the City for providing drainage to low-lying and flood prone areas. According to a 1998 Storm Water Action Plan prepared for the City, the City has a long history of storm water related problems. That plan identified more than 30 different stormwater problem areas scattered throughout the City.

Existing Policies and Programs: The City's Department of Planning and Community Development is responsible for review, approval, and enforcement of all new storm drainage and stormwater management designs associated with new developments. The policy and program tools the City uses in this endeavor consist of specific requirements set forth in the State's Erosion and Sediment (E&S) Control Handbook, the State's Stormwater Management Handbook, the City's Design and Construction Standards Manual (DCSM), and the City's Zoning Ordinances with respect to flood plain issues. The City's Department of Public Works is responsible for the physical aspects of operating and maintaining the City's existing storm water system. Principally, this effort involves the routine inspection, cleaning, and maintenance associated with pipes, culverts, inlets, and selected drainage swales as well as making any structural repairs, modifications, or improvements that may be required. In addition, the Parks &

Recreation Department staffs a Stream Health Coordinator, who partners with Public Works and Planning and Community Development to develop and implement best management practices in maintaining Blacks Run and its tributaries. A significant challenge facing the City is the number of drainage easements that have been reserved throughout the City over the years under private ownership. When easements and facilities are not properly maintained, this creates problems for neighboring or downstream properties and in some cases, public facilities.

The City of Harrisonburg manages a Stormwater Management Program under the Virginia Pollution Discharge Elimination System (VPDES) General Permit for Stormwater Discharges: Small MS4s (Phase II). The Permit requires compliance with six minimum control measures:

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post Construction Stormwater Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations.

This program is managed by both the Department of Public Works and the Department of Planning and Community Development.

### **Local Government Facilities**

It is vital for the City to maintain its facilities as effectively and efficiently as possible. This requires periodic budgetary reviews for renovations, major capital repairs, expansion and new facilities. Many of these items can be planned well in advance and these are vetted through the CIP process, but maintenance of existing structures requires a rapid and quick response when unexpected needs arise such as a premature equipment failure or structural failure. Many specific community facilities are discussed in Chapter 7 (Education), Chapter 10 (Parks & Recreation), and Chapter 11 (Transportation). While there are numerous priorities indicated in the most recently adopted CIP inclusive of all city departments, the longer-term projects prioritized include:

- Completing construction of a 30” raw water supply line from the Shenandoah River near McGaheysville to the City’s Water Treatment Plant on the west side of the City;
- Continuing/completing the multimodal Erickson Avenue-Stone Spring Road transportation facility;
- Expansion of the Rockingham-Harrisonburg Regional Jail Facility; and the
- Expanded Transit and Administration Facility.

### **Solid Waste Management**

The Department of Public Works handles solid waste management for the City. The City’s integrated program of collection, recycling, resource recovery, landfilling and education is described in detail in the *City of Harrisonburg Solid Waste Management Plan* from 2007. In 2008, to help defray the cost of solid waste collection, disposal, and recycling, the City adopted a Solid Waste Management fee that applies to all residents and commercial businesses in the City.

Collection: Harrisonburg operates a collection program for residential and for some commercial uses within the city. Trash collection is available to all single family dwelling units. The City does not have equipment to handle dumpsters; therefore service to businesses and apartment complexes is limited; however recycling services are available to all City customers, further discussed in the next section of this chapter. This requires businesses and apartment complexes to develop and submit their own Solid Waste Management Program Plan to the Department of Public Works. The Solid Waste Management Plan estimates a per capita solid waste generation rate of 4.3 pounds per day, which excludes industrial waste and construction debris.

Recycling: The City offers a curbside recycling program, participation in which is voluntary. The City estimates that 75 percent of households have requested and received recycling bins. To encourage participation, the City allows participants to co-mingle recyclables. The City sorts and recycles these household materials as well as materials collected from participating businesses, institutions, and industries. The City is currently meeting the State mandated recycling rate of 25 percent. The City's waste generation rate is 4.3 pounds per capita per day, while the daily per capita disposal rate is 3.2 pounds.

Resource Recovery and Incineration: Harrisonburg operates a 200-ton design capacity resource recovery facility on a 24-hour, year round basis located on Driver Drive on the fringe of the JMU campus. This facility burns mostly commercial and residential solid waste from both the City and County to produce steam. The steam is used in several ways including providing JMU's CISAT campus a source for heating, while in the summer the steam powers chillers that provide cooling. The steam is also available to power generators to produce electricity that may be used by HEC during periods of peak demand to reduce grid overload.

The resource recovery plant was built in 1982 and rebuilt in 2003. The new plant has doubled the design capacity to 200 tons, and meets federal Environmental Protection Agency's Clean Air Act and the Virginia Department of Environmental Quality's (DEQ) Title V regulations.

A major reason for operating the resource recovery plant is to reduce the community impact to the landfill and to furnish alternative energy to JMU and HEC. One hundred tons of waste is converted to approximately 30 tons of ash, significantly reducing the amount of solid waste deposited in the landfill and lengthening the landfill's life span. The City has plans to explore metal removal and dewatering of ash to further reduce impacts to the landfill.

Disposal in the Sanitary Landfill: The last cell of the City's landfill located on Ramblewood Road was closed in the late 1990s. Although a closed facility, the City realizes extensive long-term maintenance costs on an annual basis to remain in compliance with the approved Department of Environmental Quality closure plan. The City conducts a comprehensive set of groundwater monitoring to determine whether the former landfill is a source of contamination from the solid waste. Testing will continue for at least another 20 years. If it is determined that any contamination has occurred, a corrective action plan will be developed and implemented for the closed landfill.

This landfill has three major cells that date back to the 1950s. The Landfill was capped and a portion converted to recreational use as ball fields. The site is currently operated by the



Departments of Public Works and Parks & Recreation. As a result of the landfill closure, the City examined other options available to municipal solid waste disposal. The City was in the process of planning for a major rebuild and expansion of the Resource Recovery Facility (RRF) and an innovative partnership between the City and James Madison University was developed where the RRF would provide steam power to provide heating and cooling for the planned development of the College for Integrated Sciences and Technology (CISAT) on the east side of Interstate 81. Simultaneously, the City entered into contract with Rockingham County for use of its landfill. The agreement stipulates that the City agrees to pay a per capital share of capital improvement costs at the landfill, located on Grassy Creek Road.

The City continues to explore source reduction, reuse, and recycling of all solid waste to reduce contributions to the sanitary landfill and to provide a cleaner, more efficient waste stream to fuel the resource recovery facility. Examples might include a citywide composting program, and a materials recovery facility (MRF) to manage the City's solid waste disposal goals.

Education: The City promotes source reduction, reuse, and recycling of solid waste to the general public and in the schools. Citizens can learn more about the City's recycling center and resource recovery facility by scheduling tours with the Department of Public Works or participating in the Citizen Academy. Brochures and flyers are made available in City buildings and through a number of businesses. The Department of Public Works offers programs in the schools to discourage littering and to promote recycling.

In 2008, the City opened a Household Hazardous Collection facility on Beery Road. The City also coordinates an Adopt-a-Street Program and organizes the annual Blacks Run/Downtown Clean-Up Day. As of January 2001, various citizen groups have adopted approximately 50 miles of City streets annually for regular litter pick-up.

### **Harrisonburg Electric Commission (HEC)**

HEC purchases power for resale to its 20,000 customers from the Dominion Virginia Power Company at four separate metering points throughout the City. The Commission operates under Section 8 of the City Code and accordingly has five, City Council appointed, Commissioners.

The City has had a municipal electric system since 1905. Steam, waterpower and diesel were the original means of electric generation in the City. By the mid-1950s, the City's electric system had become run down and antiquated. Virginia Electric & Power Company (VEPCO) offered to purchase the electric system from the City and purchase a 30 year franchise for just over \$2 million. The sale went to referendum, but did not pass. It was believed that the operation of the system by an independent, nonpolitical commission would provide many advantages including more businesslike management, better long-range planning, and the elimination of excessive draining of revenues from the system. The Harrisonburg City Council created the Harrisonburg Electric Commission in October 1956. It was quickly evident that the electric system needed extensive upgrades and the Commission began work with modernizing the system throughout Harrisonburg, revising electric rates, evaluating inventory, testing meters and developing more effective public relations and personnel programs.

HEC is in the process of planning for continued growth in the City. As a distributor of power, it is of utmost importance that electric needs are met on demand. Future substations are being considered to ensure that adequate capacity is available to facilitate serving future electric loads.

### **Natural Gas Service**

The City is served by Columbia Gas of Virginia, a subsidiary of NiSource Company. NiSource owns and operates approximately 15,000 miles of strategically located natural gas pipelines, integrated with one of the largest underground storage systems in North America. The company headquarters is located in Houston, Texas.

### **Telecommunications**

The City is served by a number of telecommunications providers, including, Verizon, NTelos, Shentel and Comcast. These utilities commonly have pole attachment agreements to utilize HEC's poles for utility deployment.

In January 1996, the City Code was amended and gave HEC the authority to provide fiber optic services within the City. Approximately 17 miles of fiber were installed and the system was operational beginning April 1, 1997. The systems use today is for the City's internal use; providing network connections for Harrisonburg City Schools and local government offices.

### **Public Safety**

Police Department: The following mission statement captures the overall goals and operational objectives of the Harrisonburg Police Department very effectively:

The mission is to "preserve public peace and order, to protect life and property and to enforce the laws of the United States, Virginia and the City of Harrisonburg."

The Police Department performs the following functions:

- Provides police presence and availability throughout the City on a 24-hour basis
- Responds to reports of criminal events or requests for police service in a timely manner
- Investigates criminal events or potential criminal events by identifying, apprehending and arresting suspects, and then providing evidence and testimony in court
- Maintains responsive contact and communications with victims of crime
- Ensures the orderly and safe flow of traffic and investigates motor vehicle crashes
- Encourages community compliance with laws and participation in public safety through crime prevention and education programs, community relations activities, and in setting examples for the public to follow
- Resolves public or domestic disputes to avoid escalation to violence
- Provides specialized police presence in the public parks and recreation areas
- Develops and maintains pro-active programs directed at crime prevention
- Provides personal services and programs directed at crime prevention among the youth
- Provides a formalized complaint process in order that citizens and police can work together effectively
- Provides community services to the public that aid in accomplishing the police mission

The Department now has four police facilities:

- Public Safety building (Harrison Plaza) at 101 North Main Street
- Three unmanned satellite substations:
  - on Mosby Road
  - at the Lucy F. Simms Continuing Education Center
  - at Valley Mall

The City pays 50 percent of the cost of administering the courts and the Regional Jail, which is managed by the Sheriff. The City Police Department has a close working relationship with the Sheriff's office. In addition to sharing the courts and jail, the City allows the County to use our firing range, located on Ramblewood Road, within the City limits.

The Police Department is now headquartered in the ground, 1<sup>st</sup>, and 2<sup>nd</sup> floors of the Public Safety building. A small portion of the 4<sup>th</sup> floor is used for property storage. When the City schools move out of the 4<sup>th</sup> floor, the Department will need some of this area to expand for increased staffing levels, evidence retention, and other property needs as necessary.

Adequate parking is already a concern at the Public Safety Building. A parking deck, on the west side of the building, would provide more access for employees and the public while enhancing the safety of our fleet of vehicles. The City has allowed test drilling in the area and is pursuing funding for the project.

Fire Department: The Harrisonburg Fire Department's formal mission statement is as follows:

“The mission of the Harrisonburg Fire Department is to serve the public in protecting them from loss of life and damage to property through Fire Prevention and Fire Suppression activities, and to perform such other humanitarian actions as may be necessary to serve our citizens.”

The primary functions of this department's mission are:

- To prevent fire through fair and equal Code Enforcement
- To save lives and suppress fire through the most efficient combat tactics
- To be fiscally accountable to the citizens of Harrisonburg
- To provide economical and dependable service to our citizens
- To provide for the professional development and physical fitness of all personnel
- To serve as the City's first line of defense against any type of natural or manmade disaster

#### Existing Facilities and Services

The Fire Department has four Fire Stations and two other support facilities:

- Station 1 at 80 Maryland Avenue (2 companies)
- Station 2 at 380 Pleasant Valley Road
- Station 3 at 299 Lucy Drive
- Station 4 at 210 East Rock Street
- Administration offices at 101 North Main Street (Harrison Plaza)
- Training Center located at the City shop on Mosby Road

Typical Fire Department response times are 4 to 4½ minutes, although the Park View area has longer response times (5½ to 6½ minutes). A new Fire Station (#5) is planned in the Parkview area. A site under consideration is the former VDOT facility site at Waterman/Chicago Avenues.

Rescue Squad: The Rescue Squad, an all-volunteer organization, is an independent, non-profit corporation that is recognized as an integral part of the official safety program of the City for the purposes of saving lives, administering first aid and teaching safety. The Rescue Squad and the City entered into an arrangement in which the City provided \$1.6 million of funding for the construction of a new Rescue Squad building on a site purchased by the Rescue Squad on Reservoir Street. The squad moved into this new facility in September 2003.

Harrisonburg Rockingham Emergency Communications Center (HRECC): The Harrisonburg-Rockingham Emergency Communications Center is a consolidated center created by an Exercise of Joint Powers by the City of Harrisonburg and County of Rockingham.

“The Mission of the Harrisonburg-Rockingham Emergency Communications Center shall be to efficiently and professionally receive emergency 9-1-1 calls and dispatch emergency services to protect the citizens and visitors of Harrisonburg and Rockingham County, VA.”

The primary functions of the HRECC are:

- Efficiently process emergency calls within one minute of reception;
- Provide high quality communications through state-of the-art technology;
- Constantly seek out ways to improve the quality of services provided to the community;
- Facilitate the development of highly trained, proficient, dedicated and self-motivated personnel.

Existing Facilities and Services

- The Communications Center and joint Governmental Emergency Operations Center is located on the fifth floor of the City of Harrisonburg’s Public Safety Building, 101 N. Main Street, Harrisonburg, Virginia.
- The HRECC owns and manages eleven radio sites in various locations in the City of Harrisonburg and County of Rockingham that affords two-way radio communications among public safety responders, general government employees and the HRECC.
- The HRECC owns/manages one (of five) Virginia Communications Caches. The Communications Cache holds over five-hundred radios, portable repeaters and deployable trailer-towers that can be dispatched to significant local, state and national incidents requiring additional radio assets and interoperable radio communications.

## **Community Infrastructure Services, Safety and Health Goals, Objectives and Strategies**

Goal 11. To support a vital city with community facilities, infrastructure, and services, which are efficient, cost-effective and conserving of resources.

Objective 11.1 To continue to provide high quality public water service.

- Strategy 11.1.1 To construct needed water supply, treatment, storage, and pressure improvements, including:
- Upgrade of raw water supply and treatment capacity to 15.0 MGD
  - Additional storage and booster pump station in the 2<sup>nd</sup> High Pressure Zone
  - Storage tank and upgrade of booster pump station in the Parkview Pressure Zone
  - Upgrade of transmission pipe in the Dale Enterprise Pressure Zone
- Strategy 11.1.2 To develop an asset retirement plan for all assets with purpose to replace assets at the end of their useful life. To also continue the development of operation and maintenance programs that emphasize repair, protection, ISO fire flow delivery, system reliability, water quality, and water loss reduction.
- Objective 11.2 To continue to provide dependable, environmentally sound, sanitary sewer service.
- Strategy 11.2.1 To continue the City's wastewater system repair and maintenance programs that emphasize repair, preventive action, and reliability.
- Strategy 11.2.2 To continue the City's abatement program addressing infiltration and inflow to the wastewater collection system.
- Strategy 11.2.3 To continue the City's interceptor improvement program.
- Strategy 11.2.4 To continue the support of the Harrisonburg-Rockingham Regional Sewer Authority to meet voluntary and other goals for nutrient reduction to the Chesapeake Bay.
- Objective 11.3 To continue to manage the Small MS4 (Phase II) stormwater management program improvements, as required by the Environmental Protection Agency and the Virginia Department of Conservation & Recreation, in order to improve the quality of stormwater runoff.
- Strategy 11.3.1 To continue a public education and outreach program regarding the impacts of storm water discharges on streams.
- Strategy 11.3.2 To encourage citizen participation and involvement in all aspects of the City's storm water management program.
- Strategy 11.3.3 To work with property owners to eliminate illicit discharges once identified.
- Strategy 11.3.4 To continue enforcement of the City's erosion and sediment control program.
- Strategy 11.3.5 To enforce the requirements for and maintenance of storm water quality improvements in new and redevelopment construction.
- Strategy 11.3.6 To maintain and improve programs to prevent pollution and practice good housekeeping in municipal operations.
- Strategy 11.3.7 To manage stormwater following Best Management Practices and innovative non-point source pollution to streams and tributaries.

- Strategy 11.3.8 To develop a regional stormwater management approach through cooperation with James Madison University and Rockingham County.
- Strategy 11.3.9 To adopt stormwater management techniques, such as vegetative swales and urban forestry techniques that are both effective control measures and aesthetically pleasing.
- Strategy 11.3.10 To consider developing and implementing a Stormwater Utility Fee to fund stormwater controls, maintain existing public facilities, and encourage the use of pervious surfacing.
- Strategy 11.3.11 To consider developing a Low Impact Development (LID) design manual, and upon completion, review and amend City ordinances as needed to promote LID techniques.
- Strategy 11.3.12 To consider developing an incentive based program for development projects certified in the LEED program.
- Strategy 11.3.13 To explore the feasibility of the City's eligibility to participate in the Community Rating System administered by FEMA for the potential benefit of reducing flood hazard insurance rates.
- Objective 11.4 To reduce sediment loading into Blacks Run and its tributaries
- Strategy 11.4.1 To continue participating in the Soil and Water Conservation Board's TMDL Committee and implement measures as TMDL plans are adopted.
- Strategy 11.4.2 To seek grant funding for projects to implement TMDL goals.
- Objective 11.5 To continue an integrated approach for handling and disposal of solid waste.
- Strategy 11.5.1 To promote recycling through:
- Continued and expanded public education campaigns
  - Adoption of regulations requiring businesses to sort their recyclable solid waste and make it available for collection
  - 
  - Develop an environmentally preferable purchasing policy for government operations to encourage purchases of items with recycled content, environmentally friendly items when economically feasible.
  - Continue to provide a household hazardous waste day on a frequent basis as well as other special collections.
  - Continue to promote electronic recycling in conjunction with residents and local businesses.
- Strategy 11.5.2 To study the incoming solid waste stream in more detail so as to develop cost-effective waste collection and disposal programs.
- Strategy 11.5.3 To adopt reduction, reuse and recycling reporting legislation.
- Strategy 11.5.4 To further reduce contributions and impacts to sanitary landfills.

- Strategy 11.5.5 To document and maintain archival records of all known solid waste disposal facilities in the City.
- Strategy 11.5.6 To promote food waste diversion and composting in the community.
- Strategy 11.5.7 To promote business donations of usable but non-salable food items to local food pantries.
- Strategy 11.5.8 To investigate and develop options for a yard waste management facility in the City or in partnership with Rockingham County.
- Strategy 11.5.9 To research and implement in broad context a “pay-as-you-throw” program for refuse disposal where fees are based on the actual amount of trash generated.
  
- Objective 11.6 To involve citizens and businesses in the conservation of resources to assist in maintaining cost-effective public service delivery.
  - Strategy 11.6.1 To review the potential for voluntary citizen and business involvement in public service delivery in such areas as recycling, water conservation, stormwater pollution reduction, neighborhood watch, rescue squad participation, emergency preparedness.
  - Strategy 11.6.2 To develop programs to recruit and manage citizen and business volunteers in community service.
  
- Objective 11.7 To monitor the effectiveness and efficiency of service delivery so that changes can be made as needed.
  - Strategy 11.7.1 To perform periodic studies of the adequacy, quality, and efficiency of City service delivery, including potential needs for: additional water supply sources, water and wastewater treatment expansions, new or expanded landfill space, expanded recycling options, and resource recovery plant efficiency.
  
- Goal 12. To ensure the provision of utility services to residents, businesses and customers.
  - Objective 12.1 To support the development and maintenance of a highly reliable, efficient, and environmentally sound electrical infrastructure.
    - Strategy 12.1.1 To require that new installations of electric service in developments be constructed underground.
    - Strategy 12.1.2 To support programs to increase energy efficiency within the City of Harrisonburg.
    - Strategy 12.1.3 To provide cost-effective, energy-efficient street lighting appropriate to the use and character of the area.
  
  - Objective 12.2. To support the development and expansion of natural gas service that is reliable, cost effective, properly maintained and responsive to customer needs.

- Strategy 12.2.1 To encourage the expansion of gas facilities to all new private developments.
- Strategy 12.2.2. To encourage service delivery options to the Harrisonburg market as current infrastructure is insufficient for uninterrupted gas delivery for all users.
  
- Objective 12.1 To plan for the expansion and upgrade of public and private utilities, during maintenance and new infrastructure projects.
  
- Goal 13. To ensure the public safety and encourage the provision of excellent health services for all people.
  
- Objective 13.1 To coordinate and plan for increased emergency preparedness in the face of new national threats.
  
- Strategy 13.1.1 In cooperation with federal, state, other local law enforcement and emergency preparedness agencies, and Rockingham Memorial Hospital, provide for continual maintenance and updating of the City's local Emergency Operations Plan.
  
- Objective 13.2 To assist local health organizations and groups in efforts to achieve the Healthy People 2010 Goals, a program of the Federal Department of Health and Human Services.
  
- Strategy 13.2.1 To cooperate with health providers and groups in hosting events to promote healthy life-styles and provide information about community health services (e.g., health fairs, fitness walks and runs, healthy lifestyles promotional campaigns, etc.)
  
- Objective 13.3 To support the City police and fire departments and the volunteer rescue squad with well located and designed facilities that support their missions.
  
- Strategy 13.3.1 To provide a new police substation in the northwest quadrant of the City.
- Strategy 13.3.2 To provide a new fire station in the northwest quadrant of the City.
- Strategy 13.3.3 To provide a new police substation in the southeast quadrant of the City.